#### PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY Te: MACRAE & CO. DOCKETED P.O. Box 806 Station B OTTAWA, Ontarious Contact Canada, KIP 574  MERG.  STATEMENT OF THE	PCT  NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION
87 1884 DATE 4149	PCT Rule 44.1)
Applicant's or agent's file reference 32393	FOR FURTHER ACTION See paragraphs 1 and 4 below
PCT/CA2006/002017	International fiting date 12 December 2006 (12-12-2006) (day/month/year)
Amaliana	

ENTRUST LIMITED

[X] The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

Filing of amendments and statement under Article 19:
The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes

1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70 For more detailed instructions, see the notes on the accommanying sheet.

- [ ] The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written oninion of the International Searching Authority are transmitted herewith.
- With regard to the protest against payment of (an) additional feets) under Rule 40.2, the applicant is notified that :
  - the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
  - [ ] no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.
- Reminders

Shortly, after the expination of 18 months from the priority date, the international application will be published by the International Berrail. If the applicant weakers to evoid or postepore, publication, a posteo of withdraids of the international application of the priority claim, may reach the international Bureau as provided in Rules 90bits I and 90bits 3, respectively, before the completion of the technical propagations for the international publication.

The applicant may submit comments on an informal basis on the written opinion of the international Securiting Authority to the international Bureau Wils used a copy of such comments to all designated Offices utilises in international preliminary examination report has been or is to be established. These comments would also be made available to the public but not better the experience of 30 inontifis from the priority date.

Within 19 months from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination unsix be filled if the applicant wishes to prosphore the curve has been sufficiently places can be found to prevent a proper of the property of th

In respect of other designated Offices, the time limit of 30 months (or later) will apply even if no demand is filed within 15 months, See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the PCT Applicant's Guide, Volume II, National Chapters and the WIPO Internet site.

Name and mailing address of the ISA/CA Authorized officer Canadian Intellectual Property Office Place du Portage I, C114 - 1st Floor, Box PCT Carole Millaire 819-994-6587 50 Victoria Street Gatinesu, Quebec K1A 9C9 Paosimile No : 001-819-953-2476

#### NOTES TO FROM PCT/ISA/228

These Notes are intended to give instructions concerning the filing of amendments under Article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty in case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the PCT Applicant'S faulte, a publication of WIPO.

In these Notes, "Article," "Rule" and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions, respectively.

#### INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report and the written opinion of the International Searching Anthony, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be memorated during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19 except where, e.g. the applicant wants the latter to be published for the purposes of provisional protection or has another reason for amending the claims for international publication. Furthermore, it should be emphasized that provisional protection is available in some States only (see PCTApplicant's Guide. Volume 1/A. Amerces Bl and B2).

The attention of the applicant is drawn to the fact that amendments to the claims under Article 19 are not allowed where the International Searching Authority has declared, under Article 17(2), that no international search report would be established (see PCT Applicant) Guide. Volume I/A, paragraph 2961.

#### What parts of the international application may be amended?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before the international Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Petilimizary Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable. Article 41.

When? Within 2 months from the date of transmittal of the internetional search report or 16 months from the princity date, whichever time limit expires later. It should be noted, however, that the anondments will be considered as having been received into intensity they are received by the International Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for international publication (Rule 46, 1).

#### Where not to file the amendments?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been/is filed, see below.

How? Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement short must be submitted for each sheet of the claims which, on account of an amendment or amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no varianthering of the other claims is required, in all esses where claims are renumbered, they must be renumbered consecutively (Section 2050) (Section 2050).

The amendments must be made in the language in which the international amplication is to be outlished.

#### What documents must/may accompany the amendments?

#### Letter (Section 285(h)) :

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.

#### NOTES TO FORM PCT/ISA/228 (continued)

The letter must indicate the differences between the claims as filed and the claims as amended. It must, in particular, indicate, in connection with each claim appearing in the international application (it being understood that identical indications concerning several claims may be grouped), whether

- (i) the claim is unchanged;
   (ii) the claim is concelled:
- (11) the crams is cance
- (iii) the claim is new;
- (iv) the claim replaces one or more claims as filed;
- (v) the claim is the result of the division of a claim as filed.

#### The following examples illustrate the manner in which amendments must be explained in the accompanying letter :

- [Where originally there were 48 claims and after amendment of some claims there are 51]: "Claims 1 to 29, 31, 32, 43, 35, 37 to 48 replaced by amended claims bearing the same numbers; claims 30, 33 and 36 unchanged; new claims 49 to 51 added."
- [Where originally there were 15 claims and after amendment of all claims there are 11]: "Claims 1 to 15 replaced by amended claims 1 to 11."
- 3. [Where originally there were 14 claims and the amendments consist in cancelling wome claims and in adding new claims]: "Claims 1 to 6 and 14 unchanged, claims 7 to 15 cancelled; new claims 15, 16 and 17 added," or "Claims 1 to 13 cancelled; new claims 15, 16 and 17 added," all other claims unchanged."
- 4. [Where various kinds of amendments are made]:

"Claims 1-19 unchanged; claims 11 to 13, 18 and 19 cancelled; claims 14, 15 and 16 replaced by amended claims 14; claim 17 subdivided into amended claims 15, 16 and 17; new claims 20 and 21 added."

#### "Statement under Article 19(1)" (Rule 46.4)

The amendments may be accompanied by a statement explaining the amendments and indicating any impact that such amendments might have on the description and the drawings (which cannot be amended under Article 19(1)).

The statement will be published with the international application and the amended claims.

#### it must be in the language in which the international application is to be published.

it must be brief, not exceeding 500 words if in English or if translated into English.

It should not be confused with and does not replace the letter indicating the differences between the claims as filed and as amended. It must be filed on a separate sheet and must be identified as such by a heading, preferably by using the words "Statement under Article 14(1)."

It may not contain any disperaging comments on the international search report or the relevance of citations contained in that report.

Reference to citation, relevant to a given claim, contained in the international search report may be made only in connection with an amendment of that claim.

#### Consequence if a demand for international preliminary examination has already been filed

It, at the time of filing any amendments and any accompanying statement, under Article 19, a demand for international preliminary examination has already been submitted, the applicant must preferably, at the time of filing the amendments (and any statement) with the International Bureau, also file with the International Preliminary Examining Authority a copy of such amendments (and of any statement) and, where required, a causilation of such amendments for the procedure before that Authority (see Rules 55.3(a) and 62.2, first sentence, For further information, see the Notes to the demand forait (PCTIPEC-4A/41).

He demand for international preliminary examination is made, the written opinion of the International Searching Authority will, except in certain cases where the International Preliminary Examining Authority did not eas as International Searching Authority will except in certain cases as International Searching Authority of the task as a International Preliminary it is task notified the International Bureau under Rule 66. Libitab, be considered to be a written opinion of the International Preliminary Examining Authority. If a decumed is made, the applicant may submit to the International Preliminary to the written opinion logalists, where appropriate, with amendments before the expiration of 3 months from the date of mailing of Form PCUISA/220 or before the expiration of 22 months from the priority date, whicheve expirase later (Rule 43bits 1/c).

#### Consequence with regard to translation of the international application for entry into the national phase

The applicant's attention is drawn to the fact that, upon entry into the national phase, a translation of the claims as amended under Article 19 may have to furnished to the designated/elected Offices, instead of, or in addition to, the translation of the claims as filed.

For further details on the requirements of each designated/elected Office, see the PCT Applicant's Guide, Volume II.

# ATENT COOPERATION TREATY

# **PCT**

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Appl 323	icant's or agent's file reference 93	FOR FURTHER ACTION 2S	see Form PCT/ISA/220 well as, where applicable, item 5 below
	national application No. T/CA2006/002017	International filing date (day/month/year) 12 December 2006 (12-12-2006)	(Earliest)Priority date (day/momh/year) 12 December 2005 (12-12-2005)
	licant TRUST LIMITED		
	international search report has been le 18. A copy is being transmitted to		ty and is transmitted to the applicant according to
This	international search report consists of	f a total of 4_ sheets.	
	[X] It is also accompanied by a o	opy of each prior art document cited in this repo	n.
1.	Basis of the report		
à.	With regard to the language, the in	ternational search was carried out on the basis o	£
	[X] the international ap	plication in the language in which it was filed	
		nternational application into ished for the purposes of international search (Ra	, which is the language des 12.3(a) and 23.1(b))
ь.	[ ] With regard to any nucleotid	e and/or amino acid sequence discussed in the $i$	nternational application, see Box No. I
2.	[ ] Certain claims were found unsearchable (see Box No. II)		
3.	Unity of invention is lacking	(see Box No. III)	
4. With regard to the title,			
	[X] the text is approved as submi		
	t gine text has been estimusped	by this Authority to read as follows:	
5.	With regard to the abstract,		
	[X] the text is approved as submi	ated by the applicant	
	[ ] the text has been established,	according to Rule 38.2(b), by this Authority as i	appears in Box No. IV. The applicant
	may, within one month from	the date of mailing of this international search re-	port, submit comments to this Authority
5.	With regard to the drawings,		
	a. the figure of the drawings to	he published with the abstract is Figure No.	3
	[X] as suggested by the	applicant	
	as selected by this A	uthority, because the applicant failed to suggest	s figure
	as selected by this A	uthority, because this figure better characterizes	the invention
	b. [ ] none of the figures i	s to be published with the abstract	

International application No. | PCT/CA2006/002017

later document published after the international filting date or priority date and not in Conflict with the application but ofted to understand

Jamie Havami 819-934-2670

A CLASSIFICATION OF SUBJECT MATTER IPC: H04L 9/32 (2006.01), H04L 12/16 (2006.01)

According to International Patent Classification (IPC) or to both national classification and IPC

#### B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC: H04L (2006.01)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic database(s) consulted during the international search (name of database(s) and, where practicable, search terms used)
Canadian Patem Database, IEEExplore, Delphion, Google.

#### C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
、 A	US 2005/0144449 A1 (VOICE), 30 June 2005 (30.06.2005) see entire document	1-106
A	CA 2 193 819 C (JONSSON et al), 04 January 1996 (04.01.1996) see entire document	1-106
A	US 5,491,752 A (KAUFMAN et al), 13 Pebruary 1996 (13.02.1996) see entire document	1-106
Α.	US 6,732,277 B1 (VANDERGEEST or al), 4 May 2004 (4.05.2904) see entire document	1-106
A	US 6,934,838 B1 (BOYCE et al), 23 August 2005 (23.08.2005) see entire document	1-106
A	US 6,950,949 B1 (GILCHRIST), 27 September 2005 (27.09.2005) see entire document	1-106

DO E	urther decurrents	are listed in	the continuation of	of Box C.	LX3	See petent family annex
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"#"	to be of printing relevance  Cupler application or prem but published on or after the international fitting date.	"X" document of particular references the chained invention cannot be considered above or cannot be considered to invent an inventive step when the document is taken above.	
b 0 f	documents which many farrow discuss our periority classings) or which is critical as establish the regularities does not account clientons or other specials, easiers in a specialistic contraction or other specials, easiers in a specialistic contraction or other specials contracting to an ore discussions, use, exhibitions or other specials comment submitted gavies to bis international filling date but base than to practice that cliented.	"V" document of principle references the challenge five-shellow common to considered to land her an investiga in type when the document is possible and the common their next discretization. It is being charged with one or ment wither next discretization, such combination being charged to a produce the charged the combination being charged to the charged the charged the charged the "So" document members of the stone papers family	
Date	of the actual completion of the international search	Date of mailing of the international search report	
12 March 2007 (12-03-2007)		30 March 2007 (30-03-2007)	
Name and mailing address of the ISA/CA Canadian leastleadual Proposity Office		Authorized officer	

Form PCT/ISA/210 (second sheet.) (April 2005)

Place du Portage I, C114 - 1st Floor, Box PCT

50 Victoria Street Gatineau, Quebec KTA 009 Facsimile No.: 001-319-953-2476

Special entegrates of ched documents:

### INTERNAT AL SEARCH REPORT

International application No. PCT/CA2006/002017

C (Continual	tion). DOCUMENTS CONSIDERED TO BE RELEVANT	
Caregory*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A, P	US 6,975,727 (VANDERGEEST), 13 December 2005 (13.12.2005) see entire slocument	1-106

### INTERNAT AL SEARCH REPORT Information on patent family members

International application No. PCT/CA2006/002017

Petent Document Cited in Search Report	Publication Date	Patent Family Member(s)	Publication Date
US2905144449	30-06-2005	AU2004319571 A1 CA2566885 A1 CN1848723 A EP1751912 A1 US2005144450 A1 US2005144451 A1 US2006156752 A1 US2006156365 A1 US2006156365 A1 WC200506566363 A1 WC20050650635 A1 WC200506252 A1	24-11-2005 24-11-2005 14-10-2006 14-02-2007 30-06-2005 30-06-2005 30-06-2006 07-07-2005 19-01-2006 04-01-2007 21-07-2005 24-11-2005 24-11-2005 227-04-2006
CA2193819	04-01-1996	AU692881B B2 AL2688795 A CN1085025C C DE69534687T D1 DE69534687T T2 EP0766902 A2 F1115107B B1 JP10502195T T JP2006344240 A WS9668876 A WO9600485 A2	18-06-1998 19-01-1996 15-05-2002 19-01-2006 20-07-2006 09-04-1997 28-02-2005 24-02-1998 21-12-2006 16-09-1997 04-01-1996
US5491752	13-02-1996	US6373559 A	13-12-1994
US6732277	04-05-2804	NONE	
US6934838	23-08-2005	NONE	
US6950949	27-09-2005	NONE	
US6975727	13-12-2005	NONE	

#### PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

MACRAE & CO. P.O. Box 806 Station B OTTAWA, Ontario Canada, KTP 5T4

## PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43hts.1)

Date of mailing (day/month/year) 30 March 2007 (30-03-2007)

Applicant's or agent's file reference 32393

PCT/CA2006/002017

International application No.

FOR FURTHER ACTION

See paragraph 2 below

International filing date (day/month/year) 12 December 2006 (12-12-2006)

Priority date (day/month/year) 12 December 2005 (12-12-2005)

DIE DAYS

International Patent Classification (IPC) or both national classification and IPC IPC: H04L 9/32 (2006.01) , H04L 12/16 (2006.01)

Applicant

ENTRUST LIMITED

1. This opinion contains indications relating to the following items:

IXI Box No. I Box No. II

Basis of the opinion Priority

F 1 Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

[ 1 Box No. IV IX1 Box No. V

Reasoned statement under Rule 43bis. I(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

[ ] Box No. VI Certain documents cited

[X] Box No. VII Certain defects in the international application

TX1 Box No. VIII Certain observations on the international application

Lack of unity of invention

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the international Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has portfood the international Bureau under Rule 66, [bis(b) that written opinions of this international Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written really ingether, where exprepriets, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 as before the expiration of 22 months from the priority date, whichever expices later.

For further sprions, see Form PCT/ISA/220.

3 For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/CA Date of completion of this opinion Authorized officer Canadian Intellectual Property Office Place du Portige L C114 - 1st Floor, Box PCT 15 March 2007 (15-03-2007) Jamie Havami 819-934-2670 50 Victoria Street. Gatineau, Quebec K1A 0C9 Facsimile No : 661-819-953-7476

WRE IN OPINION OF THE INTERNATIONAL LABORATION AUTHORITY

International application No. PCT/CA2006/002017

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Į,	W	ith i	oga	nd to the fa	anguage, this opinion has been established on the basis of.	
	()	Q	the	internation	mil application in the language in which it was filed	
	4	7000	s tr	anstation c	of the international application into	, which is the language of a
			irar	slation fur	mished for the purposes of international search (Rules 12.3(a) and 23.1(	(b)).
2.					nucleotide and/or amino acid sequence disclosed in the international at on has been established on the basis of:	oplication and necessary to the claimed
	ä.	typ	e of	materia?		
		-	1	a sequen	ce liming	
			)	table(s) r	related to the sequence listing	
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		Year	1	on paper		
		E	1	in electro	onic form	
	¢.	tion	e of	filing/fure	gnidain	
		Ě	1	containe	d in the international application as filed.	
		-	)	filed togs	other with the international application in electronic form	
		-	)	furnished	subsequently to this Authority for the purposes of search.	
3		3	în a	ddition, in	the case that more than one version or copy of a sequence listing and/o	r table(s) relating thereto has
					furnished, the required statement that the information in the subsequent filed or does not go beyond the application as filed, as appropriate, wer	
\$.	Ac	lditi	onal	comment	*:	
	Ch	aims	: }-	06 as orig	-60 as originally filed ginally filed 4 as originally filed	

WRITY OPINION OF THE INTERNATION SEARCHING AUTHORITY

International application No. PCT/CA2006/002017

citations and explanations supporting such statement					
1. Statement					
Novelty (N)	Claims <u>1-106</u>	YES			
	Claims Nong	NO			
Inventive step (IS)	Claims 1-106	YES			
	Claims None	NO			
Industrial applicability (IA)	Claims 1-166	YES			
	Claims None	NO			

Quantimed etuturment under Date 4746: Ifallit with meaned to according tomosphie even as independent annihability.

#### 2. Citations and explanations :

Bor No V

The claimed invention relates to a method and apparatus for providing authentication between a user and a target resource or information sending entity that employs soft tokens or hard tokens for providing mutual authentication between a user and a target resource.

This opinion is based on the originally filed claims 1-106.

The following relevant document appears in the International Search Report:

D1: US 2005/0144449 A1

D1 discloses a method and apparatus for providing mutual authentication between a user and a sending unit.

The following observations are made:

#### Article 33(2) PCT - Novelry

Since no single prior art document discloses the exact features of claims 1-106, the subject-matter of claims 1-106 are novel under Article 33(2) PCT.

#### Article 33(3) PCT - Inventive Step

In regards to the present invention, D1, which it considered to represent the most relevant state of the art, discloses the features of generating a challenge for user authentication, using location information located on a naticle (translations identification member), wherein location information corresponds to raw and column identifiers and sending the generated challenge for use in an authentication of a user to a sender 1D1: see entire document). D1, however, fails to disclose the feature of having a challenge data element from a stored pool of challenge data elements, the challenge being best of or rule data and stored usage data with at least some of the challenge data elements at stored pool of challenge data elements at disclosed in independent claim 1. Independent claims 24, 36, 47, 55, 68, 81, and 94 also include the aforement of claimser of friedpendent claims.

Therefore, the subject-matter of claims 1-106 involve an inventive step under Article 33(3) PCT.

#### Article 33(4) PCT - Industrial Applicability

The subject-matter of claims 1-106 are considered to have industrial applicability and fulfill the requirements of Article 33(3) PCT.

# WRIT OPINION OF THE INTERNATIO: SEARCHING AUTHORITY

International application No. PCT/CA2006/002017

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

#### Description

The description does not comply with Rule 5.1(a) of the PCT. The description shall disclose the alleged invention in such terms that the technical problem and its solution can be understood. The description is missing the brief description of the invention.

### Drawings

The drawings and/or the description do not comply with Rule 11.13(l) of the PCT. Reference signs not mentioned in the description shall not appear in the drawing, and vice versa.

In the drawings, reference numerals 304 (fig. 3), 809 (fig. 8), 1008 (fig. 10), 1302 (fig. 12), 3002 (fig. 35), 3316 (fig. 36), 3512 (fig. 37, 38) are shown, however they do not appear in the description.

On page 37, line 29 of the description, database 2404 is mentioned, however it does not appear in the drawings. It appears that in figure 24, there is a typo and database "2402" should read as "2404".

#### IN OPINION OF THE INTERNATIC. J. SEARCHING AUTHORITY

International application No. PCT/CA2006/002017

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

#### Description Informalities

The description does not comply with Article 5 of the PCT. The http internet address provided on page 3, line 29 is not a static electronic file. The information disclosed in said file can change and therefore is not reliable. Therefore, a person skilled in the art is not fully enabled to practice the alleged invention of the present application.

#### Clerical Errors

On page 19, line 7, "translucent identification member 38" should read as --translucent identification member 14-.

On page 21, line 3, "block 204" should read as -block 304-.

On page 23, line 19, "suitable server 810" should read as -suitable server 809--.

On page 25, line 27, "user name 1402" should read as --user name 1302-. On page 47, line 29, "FRG 313" should read as -- FIG. 33-.